



I L L I N O I S

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

**Multi-State Prairie Arthropod Inventory/ Research Project
Champaign, Ford, & Iroquois Counties, Illinois**

carried out by members of the
Illinois Natural History Survey
Center for Biodiversity
607 E. Peabody
Champaign, Illinois 61820-6970

Annual report for the 1998-1999 fiscal year of the
Multi-State Prairie Insect Inventory
to
Wisconsin Department of Natural Resources
and
United States Fish and Wildlife Service

Illinois Natural History Survey Technical Report 1999 (17)

Prepared by:
Kathy Zeiders
Chris Dietrich
David Voegtlin

Submitted September 1999

Multi-State Prairie Arthropod Inventory/ Research Project Champaign, Ford, & Iroquois Counties, Illinois - 1998-1999

K. R. Zeiders
C. H. Dietrich
D. J. Voegtlin

Introduction

Illinois is divided up into 14 "Natural Divisions". The prairie arthropods we studied inhabited a remnant of the "Grand Prairie Division" or black soil prairie. This is the rarest type of prairie left today. The black soil prairie is characterized by deep loess soil, flat landscape, and poor drainage that results in wet conditions part of the year.

Arthropods were sampled from prairie remnant railroad right-of-way sites on a regular basis in Champaign, Ford, & Iroquois Counties, Illinois during the 1998 - 1999 fiscal year. The sampled areas are a portion of an almost continuous prairie that's juxtaposed between railroad tracks and US Route 45. Corn and soybean fields are found to the west of the RR tracks and east of US Rt 45. The habitat ranges from wetlands to dry-mesic prairie.

The sampled areas were divided up into three small areas of the Grand Prairie Division: north edge of Rantoul, south of Paxton - north and south of Pit Road, and north of Loda between 300N and 400N. Additional sampling was also done at two other sites in Iroquois Co.: Loda Cemetery Prairie Nature Preserve and the Iroquois County Conservation Area. A section of the Paxton site had been burned in recent years.

The three sites along US Rt. 45 contain an array of prairie plants such as the grasses *Andropogon gerardii*, and *A. scoparium* and also many species of *Carex*. There were numerous forbs present; *Liatris spp.*, *Solidago rigida*, *S. canadensis*, *Helianthus mollis*, *H. grosseserratus*, *Silphium terebinthinaceum*, *S. laciniatum*, *S. perfoliatum*, and *S. integrifolium*, *Erigeron canadensis*, *Asclepias spp.*, *Echinacea*, *Ratibida*, *Rudbeckia hirta*, *Monarda*, *Potentilla*, *Lespedeza*, *Oenothera biennis*, *Eryngium yuccifolium*, *Aster novae-angliae*, and *Cirsium*. *Salix*, *Cornus*, and *Rubrus* were also plentiful.

Loda Cemetery Prairie Nature Preserve - The Loda Cemetery Prairie is a 3.4 acre remnant mesic black soil prairie. The prairie had been mowed on a regular basis until the early 1980's, but never had been cultivated or used as pasture land. Indian grass and big bluestem are the dominant grasses. Shooting star, downy phlox, yellow star grass, rattlesnake master, compass plant, wild quinine, goldenrod, and asters are also plentiful in season.

Sampling

General collecting took place on a bi-weekly basis from 17 July 1998 to 25 October 1998 and 25 May 1999 to 7 July 1999. Prairie arthropods were collected by pitfall traps, sweeping, vacuuming, and hand-picking host plants. Visual observations were made.

Prairie Spiders - Champaign, Ford, and Iroquois Counties, Illinois, 1998 -1999

K. R. Zeiders

24 August 1999

Methods

Spiders were collected by pitfall trapping, sweep netting, and vacuuming.

A total of ten pitfall traps were set up. Sampling was done bi-weekly. Each pitfall trap consisted of two, layered 16 ounce Solo® cups placed flush with the ground. The collecting cup contained a few ounces of Sierra® antifreeze. A piece of chicken wire was staked above the cups to help keep out vertebrates. The traps were left in the ground for two-week time intervals. The upper cup was taken out at this time and replaced with a new cup and fresh antifreeze. After collecting the pitfall trap, the adjacent area was sweep netted for additional spiders. Spiders were also collected from vacuum samples. The cups were taken back to the lab to be sorted. All spider locality and identification information was entered into a Filemaker Database. Non-spider arthropods collected will be sent to Wisconsin to be identified.

Results

A total of 2123 spiders were collected at the Loda, Paxton, and Rantoul Sites. The majority of these spiders belong to the family Lycosidae, with *Pardosa saxatilis* being the most frequently collected spider. A total of 18 families are represented at these sites and include at least 77 species. This represents around 15% of the known spider species in Illinois.

An additional 75 spiders were collected by sweep netting at the Loda Cemetery Prairie and the Iroquois County Conservation Area. These were primarily Salticidae and Thomisidae.

% of Individuals Collected

	<u>Loda</u>	<u>Paxton</u>	<u>Rantoul</u>
<u>Spider Family</u>			
Araneidae	11%	18%	7%
Clubionidae	2%	1%	<1%
Corinnidae	2%	<1%	<1%
Gnaphosidae	2%	2%	<1%
Linyphiidae	2%	4%	<1%
Lycosidae	66%	44%	30%
Philodromidae	1%	3%	8%
Salticidae	6%	12%	33%
Tetragnathidae	<1%	2%	<1%
Thomisidae	4%	10%	9%

Loda Sites - Pitfall Traps # 1, 2, 3, & 4

A total of 972 spiders covering seventeen families and 53 species were collected at this site. The Lycosidae or Wolf Spiders (66%) were the primary family collected at Loda, heavily dominated by *Pardosa saxatilis*. This spider can normally be found in grassy fields or meadows, but they also have been found near wetter areas such as marshes, bogs, and additionally sandy beaches, and deciduous forests.

Also numerous numbers of *Schizocosa bilineata* (Lycosidae), *Misumenoides formosipes* (Thomisidae), *Neoscona arabesca*, *Argiope trifasciata* and *A. aurantia* (Araneidae), and *Phidippus* (Salticidae) were also collected. During August and September it was difficult to collect in the Loda Site without running into an *Argiope* web. An interesting spider *Peckhamia picata* (Salticidae) an ant-mimic was found at the Loda Site. Unfortunately, the particular area that it was found was bull-dozed and covered with dirt towards the end of the study. I also found the Loda site to be a diverse area for Clubionidae, Gnaphosidae, and Corinnidae. With pitfall trapping, these spiders are not normally collected in the quantities as the Wolf spiders.

Paxton Sites - Pitfall Traps # 5, 6, 7, & 8

At the Paxton Site, 780 individual spiders were collected. A total of seventeen families representing 49 species were found at this site. Again, Lycosidae was the most numerous spider collected (44%). Although, the dominant spider at this site was again *Pardosa saxatilis* (12.7%), another Lycosidae, *Schizocosa bilineata* was not far behind (11%). *S. bilineata* can normally be found in grassy areas and meadows.

Misumenoides formosipes, *Xysticus ferox* (Thomisidae) and *Argiope* (Araneidae) were also quite common. Also, some of the larger Lycosidae, *Hogna frondicola*, *H. helluo*, and *H. rabida* were found in small numbers at this site. *H. helluo* can be found in wet fields, *H. rabida* inhabits tall grasses, and *H. frondicola* can be found in meadows.

Rantoul Site - Pitfall Trap # 9 & 10

We collected 371 spiders at the Rantoul Site. Fourteen families representing 26 species were found at this site. The Salticidae comprised the highest number of individuals with *Phidippus clarus* and *Metaphidippus protervus* being the most frequently collected. Like the Loda and Paxton Sites, the Lycosidae *Pardosa saxatilis* was also numerous found in the pitfall traps. Unlike the other two sites, *Tibellus* (Philodromidae) was found in high numbers. We also sweep netted many *Argiope* (Araneidae) and *Misumenoides formosipes* (Thomisidae). *Lycosa rabida* and *Schizocosa bilineata* (Lycosidae), were also found in high numbers in the pitfall traps.

Prairie Spiders - Champaign, Ford, & Iroquois Counties, Illinois

Family	Genus	species	Loda Sites				Paxton Sites				Rantoul Sites		Iroquois County Conservation Area	Loda Cemetery
			1	2	3	4	5	6	7	8	9	10		
Agelenidae														
Agelenidae	Agelenopsis	spp.			X									
Anyphaenidae														
Anyphaenidae	Wulfila	saltabunda					X	X	X	X	X	X		
Araneidae														
Araneidae	Acacesia	hamata				X								X
Araneidae	Araniella	displicata	X	X					X		X	X		
Araneidae	Argiope					X	X	X	X	X				X
Araneidae	Argiope	aurantia	X	X	X	X								X
Araneidae	Argiope	trifasciata	X	X	X	X					X	X		
Araneidae	Cyclosa	turbinata					X	X		X				
Araneidae	Neoscona													X
Araneidae	Neoscona	arabesca	X	X	X	X	X	X	X	X	X	X		
Araneidae	Neoscona	pratensis							X					
Clubionidae														
Clubionidae	Clubiona			X	X			X						
Clubionidae	Clubiona	abboti	X			X	X			X				
Corinnidae	Castianeira		X						X					
Corinnidae	Castianeira	longipalpa			X	X				X		X		
Dictynidae														
Dictynidae	Dictyna		X	X	X	X	X	X		X	X	X		
Dictynidae	Dictyna	foliacea							X					
Dysderidae	Dysdera	crocota								X				
Gnaphosidae	Cesonia	bilineata					X	X						
Gnaphosidae	Drassyllus	depressus									X			
Gnaphosidae	Drassyllus	rufulus		X				X						
Gnaphosidae	Micaria	elizabethae							X					
Gnaphosidae	Micaria	longipes		X	X	X	X		X					
Gnaphosidae	Micaria	pulicaria		X					X					
Gnaphosidae	Sergiolus		X					X						
Gnaphosidae	Sergiolus	capulatus								X				
Gnaphosidae	Sergiolus	decoratus		X										
Gnaphosidae	Zelotes	fratris			X									
Gnaphosidae	Zelotes	subterraneus			X	X								
Hahniidae	Neoantistea	agilis	X		X	X								
Linyphiidae														
				X	X	X	X		X	X	X			X

Prairie Spiders - Champaign, Ford, & Iroquois Counties, Illinois

Family	Genus	species	Loda Sites				Paxton Sites				Rantoul Sites		Iroquois County Conservation Area	Loda Cemetery
			1	2	3	4	5	6	7	8	9	10		
Linyphiidae	Bathyphantes	pallidus	X			X	X							
Linyphiidae	Ceraticelus		X	X										
Linyphiidae	Ceraticelus	emertoni				X		X	X					
Linyphiidae	Ceraticelus	pygmaeus					X							
Linyphiidae	Erigone				X									
Linyphiidae	Frontinella	communis												X
Linyphiidae	Linyphia						X							
Linyphiidae	Meioneta				X		X	X		X				
Linyphiidae	Microlinyphia	mandibulata	X	X	X	X								
Linyphiidae	Nerienne	clathrata	X	X			X			X				
Linyphiidae	Nerienne	variabilis							X					
Liocranidae	Phrurotimpus					X								
Liocranidae	Phrurotimpus	certus							X					
Liocranidae	Scotinella	britcheri				X						X		
Lycosidae					X		X	X		X				
Lycosidae	Hogna			X										
Lycosidae	Hogna	frondicola	X				X			X				
Lycosidae	Hogna	helluo				X	X		X			X		
Lycosidae	Hogna	rabida			X		X	X		X		X	X	
Lycosidae	Pardosa	milvina	X	X	X	X								
Lycosidae	Pardosa	saxatilis	X	X	X	X	X	X	X	X		X	X	
Lycosidae	Pirata	insularis	X		X									
Lycosidae	Pirata	minutus	X		X									
Lycosidae	Schizocosa	avida	X	X	X	X	X			X		X	X	
Lycosidae	Schizocosa	bilineata	X	X	X	X	X	X	X	X		X	X	
Lycosidae	Schizocosa	crassipalpata		X		X				X				
Lycosidae	Schizocosa	rovneri	X	X	X		X					X		
Lycosidae	Trochosa				X									
Oxyopidae	Oxyopes	salticus		X				X				X	X	
Philodromidae								X		X		X		X
Philodromidae	Philodromus	cespitum	X	X	X	X	X	X		X				
Philodromidae	Philodromus	imbecillus					X	X	X	X				
Philodromidae	Thanatus		X	X		X	X	X		X				
Philodromidae	Thanatus	formicinus					X		X					
Philodromidae	Tibellus	duttoni	X	X	X	X						X	X	X
Philodromidae	Tibellus	oblongus					X	X	X	X				X

Prairie Spiders - Champaign, Ford, & Iroquois Counties, Illinois

Family	Genus	species	Loda Sites				Paxton Sites				Rantoul Sites		Iroquois County Conservation Area	Loda Cemetery
			1	2	3	4	5	6	7	8	9	10		
Pisauridae									X				X	
Salticidae	Talavera	minuta				X	X		X					
Salticidae								X	X		X	X		
Salticidae	Habronattus	coronatus								X				
Salticidae	Habronattus	decorus				X								
Salticidae	Habronattus	viridipes	X	X										
Salticidae	Marpissa	pikei					X	X		X	X	X		
Salticidae	Metaphidippus													X
Salticidae	Metaphidippus	canadensis					X							
Salticidae	Metaphidippus	protervus	X	X	X	X	X	X	X	X	X	X		
Salticidae	Peckhamia	picata		X										
Salticidae	Phidippus	audax			X	X	X	X		X	X	X		
Salticidae	Phidippus	clarus	X	X	X	X	X	X	X	X	X	X	X	
Salticidae	Sitticus	cursor	X	X	X	X					X	X		
Salticidae	Tutelina	elegans					X	X		X	X	X	X	
Tetragnathidae	Glenognatha	foxii	X						X					
Tetragnathidae	Pachygnatha	autumnalis		X	X		X		X	X	X	X		
Tetragnathidae	Tetragnatha		X		X	X	X	X	X	X				
Theridiidae	Theridion	albidum									X	X		
Theridiidae	Theridula	opulenta												X
Theridiidae	Thymoites	unimaculatum									X	X		
Thomisidae	Misumenoides	formosipes	X	X	X	X	X	X	X	X	X	X	X	
Thomisidae	Misumenops	oblongus			X	X	X	X		X	X	X		
Thomisidae	Ozyptila					X								
Thomisidae	Ozyptila	conspurcata									X	X		
Thomisidae	Xysticus	ferox	X		X		X	X		X		X		
Thomisidae	Xysticus	gulosus ?	X											
Thomisidae	Xysticus	luctans									X	X		X

Leafhoppers of the Rt. 45 Railroad Prairie (Champaign, Ford, and Iroquois Counties, Illinois)

C.H. Dietrich

Leafhoppers (Homoptera: Cicadellidae) were sampled by vacuum along 100-m transects at 5 sites along U.S. Rt. 45. All adults and nymphs were identified to genus and, when possible, species. Other insects in the vacuum samples were saved for eventual sorting and counting of morphospecies. The samples are stored in ethanol in the Illinois Natural History Survey Insect Collection.

The following table lists the species of Cicadellidae and the sites at which they occurred.

Cicadellidae of Rt. 45 Railroad Prairie

Species	site 1	site 2	site 3	site 4	site 5
<i>Agallia constricta</i> Van Duzee			X	X	
<i>Aphrodes bicincta</i> (Curtis)	X	X			X
<i>Athysanus argentarius</i> Metcalf	X	X			X
<i>Balclutha abdominalis</i> Van Duzee		X	X		
<i>Balclutha neglecta</i> DeL.&Dav.	X				
<i>Ceratagallia uhleri</i> (Van Duzee)		X	X		X
<i>Chlorotettix</i> sp.		X	X		X
<i>Cicadula melanogaster</i> (Provancher)	X	X	X	X	X
<i>Dikraneura angustata</i> Ball & DeLong	X	X	X	X	X
<i>Dikrella cruentata</i> (Gillette)		X			
<i>Doratura stylata</i> (Boheman)	X				
<i>Dorycara platyrhyncha</i> (Osborn)			X		
<i>Dorydiella kansana</i> Beamer					X
<i>Draeculacephala antica</i> (Walker)	X	X			
<i>Draeculacephala constricta</i> Dav.&DeL.	X	X	X		X
<i>Empoasca fabae</i> (Harris)	X	X	X	X	
<i>Endria inimica</i> (Say)	X			X	
<i>Erythroneura</i> sp.					X
<i>Exitianus exitiosus</i> (Uhler)	X				
<i>Flexamia</i> sp.					X
<i>Forcipata loca</i> DeL.& Cald.	X	X	X	X	
<i>Graminella aureovittata</i> (Sand.&DeL.)		X			
<i>Graminella fitchii</i> (Van Duzee)				X	
<i>Graminella nigrifrons</i> (Forbes)	X	X	X	X	
<i>Graphocephala hieroglyphica</i> (Say)		X			
<i>Gyponana ortha</i> DeLong	X		X		
<i>Jikradia olittoria</i> (Say)	X				
<i>Laevicephalus</i> sp.		X			
<i>Latalus sayi</i> (Fitch)	X				
<i>Limotettix anthracina</i> (Van Duzee)	X	X	X		
<i>Neocoelidia tumidifrons</i> Gill.&Baker	X				
<i>Paraphlepsius irroratus</i> (Say)			X		X
<i>Pendarus magnus</i> (Osb. & Ball)		X			
<i>Penthimia americana</i> Fitch					X
<i>Planicephalus flavicostus</i> Stål	X				
<i>Polyamia caperata</i> (Ball)	X	X	X	X	X
<i>Scaphytopius acutus</i> (Say)	X		X		X
<i>Tinobregmus vittatus</i> Van Duzee		X	X		X

<i>Xestocephalus brunneus</i> Van Duzee		X	X		
TOTAL	21	21	18	18	15

Sample sites were as follows:

Site 1: IL: Champaign Co., U.S. 45 @ Rantoul (N. side)

Site 2: IL: Ford Co., U.S. 45 just S. Pit Road

Site 3: IL: Ford Co., U.S. 45 just N. Pit Road

Site 4: IL: Ford Co., U.S. 45 ca. 400m N. Pit Road

Site 5: IL: Iroquois Co., U.S. 45 @ CR 300E

Of the sites sampled over the past four years of the Multi-State Prairie Insect Inventory, the Rt. 45 railroad prairie is among the most depauperate in it's leafhopper fauna. This was somewhat surprising given the abundance of native plants present. In all, 39 species were collected during the 1998-99 collecting seasons. Among the most noteworthy were two immature specimens of *Pendarus magnus*, vacuumed from *Sporobolus heterolepis* at Site 2 (South of Pit Road, Ford Co., May 1999). This species appears to be extremely rare in Illinois, but also occurs at Loda Cemetery Prairie not far from the sites sampled. The population of *Tinobregmus vittatus* at sites 2 and 3 apparently represents the northernmost known occurrence of this species in the U.S. Other Illinois records of this species are from the far southern end of the state.

The Rt. 45 railroad prairie has, thus far, remained largely unmanaged, although some sections have been burned in recent years. Interestingly, cicadellid species richness was lowest at Site 4, the only sampled area that had been burned recently (Spring 1997).

Estimating Diversity based on Morphospecies Data: Summary of work in progress

V. Block and C. Dietrich

In conjunction with the Multi-State Prairie Insect Inventory Project, quantitative vacuum and sweep samples have been collected over the past 3 years at several Illinois prairies: Richardson Wildlife Foundation (RWF), 4 Mason Co. Nature Preserves, and Rt. 45 Railroad Prairie. In order to compare the species richness of the arthropod faunas of these remnant prairies, we are attempting to count the number of species within each sample and compare the species compositions of the different localities. Because identification of many arthropod groups is difficult, we are not attempting to identify each species by name. Rather, we are sorting the species to order (and family if possible) and then grouping the specimens into morphospecies based on their morphological similarities. Use of morphospecies as surrogates for true biological species is a widely accepted practice in biodiversity studies. When completed this work will represent the most comprehensive assessment of morphospecies diversity ever in tall grass prairies.

To date we have sorted 17 vacuum samples from Richardson Wildlife Foundation to morphospecies for all major arthropod groups except micro-Hymenoptera. The latter group appears to be extremely speciose in prairies and, because of this, it was difficult to standardize our definitions of morphospecies across samples. Thus, due to time constraints, we decided to concentrate on the other insect orders. Over 500 morphospecies have been found so far from RWF alone.

Once morphospecies data are obtained from other sites, we will use these data to compare sites based on species richness and composition and attempt to determine the extent to which diversity in one taxon predicts that of another. These results will be published in a refereed journal.

Aphids collected on Route 45 railroad prairie 1998-99.
David Voegtlin - September 1999

Species collected	N. Rantoul	Pit Road	N. Loda
<i>Anoecia cornicola</i> (Walsh)			x
<i>Anoecia corni</i> (Fabricius)	x		
<i>Aphis coreopsidis</i> (Thomas)	x		
<i>Aphis fabae</i> Scopoli			x
<i>Aphis knowltoni</i> Hottes & Frison			x
<i>Aphis monardae</i> Oestlund		x	
<i>Aphis nerii</i> Boyer de Fonscolombe	x	x	x
<i>Aphis pomi</i> DeGeer			x
<i>Aphis rubifolii</i> Thomas	x		x
<i>Brachycaudus</i> (<i>Appelia</i>) <i>tragopogonis</i> (Kaltenbach)			x
<i>Capitophorus eleagni</i> (Del Guercio)	x	x	x
<i>Chaitophorus nigrae</i> (Oestlund)	x	x	x
<i>Iziphya flabella</i> (Sanborn)		x	x
<i>Iziphya vitatta</i> Richards	x	x	
<i>Rhopalosiphum maidis</i> (Fitch)	x		
<i>Rhopalosiphum padi</i> (Linnaeus)		x	
<i>Sipha flava</i> (Forbes)	x	x	
<i>Schizaphis graminum</i> (Rondani)	x	x	
<i>Stenaphis elongata</i> (Baker)		x	
<i>Subsaltusaphis wanica</i> (Hottes & Frison)		x	
<i>Therioaphis trifolii</i> (Monell)	x	x	
<i>Uroleucon ambrosiae</i> (Thomas)	x	x	
<i>Uroleucon leonardi</i> (Olive)		x	
<i>Uroleucon nigrotuberculatum</i> (Olive)	x	x	x
<i>Uroleucon reynoldense</i> (Olive)	x		
<i>Uroleucon</i> (<i>Lambersius</i>) <i>anomala</i> (H & F)	x		x
<i>Uroleucon</i> (<i>Lambersius</i>) <i>erigeronensis</i> (Thomas)		x	
<i>Uroleucon</i> (<i>Lambersius</i>) <i>luteolum</i> (Williams)	x		
<i>Uroleucon</i> (<i>Uromelan</i>) <i>helianthicola</i> (Olive)	x		x

N-45 prairie aphids.

Anoecia corni and *A. cornicola* live on roots of grasses during the summer, migrate back to *Cornus* spp. for deposition of sexuales and production of overwintering eggs.

Aphis coreopsidis is a relatively uncommon aphid found on *Bidens* and *Coreopsis*. This collection from *Bidens*.

Aphis knowltoni is a root aphid that feeds on *Taraxicum*.

Aphis monardae feeds on native mints, such as *Monarda fistulosa*.

Aphis nerii is an annual migrant from the south that feeds on virtually all milkweeds that are found in the prairie. Seen on *Asclepias syriaca* and *Asclepias incarnata*.

Aphis pomi, the apple aphid, was found on a *Crataegus* growing in the prairie.

Aphis rubifolii found distorting growing tips of *Rubus* spp.

Brachycaudus tragopogonis is found in *Tragopogon dubius*. Neither this species or its host are native.

Capitophorus eleagni lives on *Cirsium* spp. during the summer and migrates to *Eleagnus* spp. for the production of sexuales and overwintering eggs.

Chaitophorus nigrae was a common aphid on *Salix* sp. throughout the three sites.

Iziphya flabella and *I. vitatta* feed on *Carex* spp. and some of the warm season grasses. Members of this genus are some of the most common species found when using a bug vac. in areas with *Carex* spp.

Three species, *Rhopalosiphum maidis*, *R. padi*, *Schizaphis graminum* are cosmopolitan pests on cereals and grasses. Taken by vacuum and most likely feeding on cool season grasses present in the prairie.

Sipha flava feeds on *Andropogon gerardiae*, *A. scoparius*, *Sorghastrum nutans* and possibly many other warm season grasses.

Stenaphis elongatus is a real surprise and the first time in this prairie survey that it has been found. It is known from only a few sites in Illinois and has been taken on *Carex*. Our specimens were taken by vacuum so host is not known but it was found at only one of the three main sites. This species is easily confused with *Subsaltusaphis wanica*.

Subsaltusaphis wanica, found on *Spartina pectinata* was found at only one of the sites by vacuum.

Therioaphis trifolii is a cosmopolitan pest on alfalfa and clovers. Most likely living on weedy sweet clover in these sites.

Uroleucon spp. feed almost exclusively on composites, as such they are some of the most visible and common aphid species found in the prairie.

Uroleucon ambrosiae taken on *Ambrosia trifida*. A common aphid listed from a variety of hosts but most determinations are probably in error.

Uroleucon leonardi was taken on *Ratibida pinnata*.

Uroleucon nigrotuberculatum taken on *Solidago canadensis*. Possibly one of the most common aphids on *Solidago* spp. in Illinois.

Uroleucon reynoldense taken on *Coreopsis tripteris*. Determined with query.

Uroleucon (Lambersius) anomalae taken on *Aster novaeangliae*.

Uroleucon (Lambersius) erigeronensis taken on *Erigeron canadensis*.

Uroleucon (Lambersius) luteolum taken on *Solidago canadensis*. Another common aphid on *Solidago* spp. in the prairie.

Uroleucon (Uromelan) helianthicola taken on *Helianthus grosseserratus*.

There is one species of *Uroleucon* that defies determination, i.e. it does not key anywhere. There was also a species of an eriosomatine that I could not place.

The aphids were far more interesting than I expected when first visiting these three sites between Hwy 45 and the railroad. I did not find any aphids in the section of the Pit Road site that was burned. The find of *Stenaphis elongata* is pretty interesting as one of the sites from which it was originally described is Seymour (a small town a few miles west of Champaign). This is not a common aphid and may have a rather specific host that limits its distribution. Because it is easily confused as it looks very much like *Subsaltusaphis wanica*, an aphid that is much more common and lives on *Spartina* and *Carex*, I may have seen it in vacuum samples before but not collected it, thinking it was the later species.

At these sites, as in all others sampled in this multi-year study, there are many prairie plants that are known hosts of aphids but the species were not to be found. It is impossible to examine all host plants in an area and populations of aphids drop dramatically during the summer. It is also possible that many of these species will never be present as nearest source population may be a long distance away.